

# Monoclonal Anti-human AMICA/JAML Antibody

## ORDERING INFORMATION

**Catalog Number:** MAB34491

**Clone:** 401901

**Lot Number:** CAO01

**Size:** 100 µg

**Formulation:** 0.2 µm filtered solution in PBS with 5% trehalose

**Storage:** -20° C

**Reconstitution:** sterile PBS

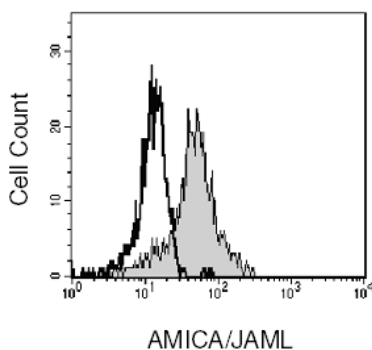
**Specificity:** human AMICA

**Immunogen:** NS0-derived rhAMICA

**Ig class:** mouse IgG<sub>2A</sub>

**Recommended Application:**  
Flow cytometry

**Other Applications:**  
Western blot  
Direct ELISA



Human blood-derived monocytes were stained with anti-AMICA/JAML (R&D Systems, Cat. # MAB3449, filled histogram) or isotype control antibody (R&D Systems, Cat. # MAB003, open histogram), followed by PE-conjugated anti-mouse antibody (R&D Systems, Cat. # F0102B).

## Background

AMICA (Adhesion Molecule that interacts with CXADR antigen 1), also known as junction adhesion molecule like (JAML) is a 60 kDa type I transmembrane glycoprotein member of the JAM family of adhesion molecules. Human AMICA has an extracellular domain (ECD) of 275 amino acids (aa) and a cytoplasmic tail of 98 amino acids. The ECD contains two Ig-like regions. There is an N-terminal C2-type Ig-like domain and a membrane proximal V-type Ig-like domain. AMICA is expressed by leukocytes and is concentrated at areas of cell-cell contact. It forms noncovalent homodimers on the cell surface and binds CXADR on epithelial cells. Alternate splicing generates a potentially soluble isoform. Human AMICA ECD is 62% and 76% aa identical to mouse and dog AMICA ECD, respectively.

## Preparation

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, NS0-derived, recombinant human AMICA (rhAMICA; aa 10 - 265; Accession # Q86YT9). The IgG fraction of the tissue culture supernatant was purified by Protein G affinity chromatography.

## Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

## Reconstitution

Reconstitute with sterile PBS. If 0.2 mL of PBS is used, the antibody concentration will be 500 µg/mL.

## Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

## Specificity

This antibody detects rhAMICA in direct ELISAs and Western blots. In these applications, this antibody shows no cross-reactivity with rmAMICA.

## Applications

**Flow cytometry** - This antibody was tested for flow cytometry using blood-derived monocytes. Dilute this antibody to 25 µg/mL and add 10 µL of the diluted solution to 1 - 2.5 x 10<sup>5</sup> cells in a total reaction volume not exceeding 200 µL. The binding of unlabeled monoclonal antibodies may be visualized by adding 10 µL of a 25 µg/mL stock solution of a secondary developing reagent such as goat anti-mouse IgG conjugated to a fluorochrome.

**Western blot** - This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human AMICA. Using a colorimetric detection system, the detection limit for rhAMICA is approximately 25 ng/lane under non-reducing and reducing conditions. Chemiluminescent detection will increase sensitivity by 5 to 50 fold. For greater sensitivity, the use of MAB3449 is recommended.

**Direct ELISA** - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human AMICA. The detection limit for rhAMICA is approximately 2 ng/well.

**Optimal dilutions should be determined by each laboratory for each application.**